

REMARKS

This Amendment is prepared in response to the Office action mailed on 5 July 2007 (Paper No. 20070621). Re-examination and reconsideration are respectfully requested.

Amendment of the Claims

No amendments are made to any of the claims in this response.

Listing of the Claims

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Status of the Claims

Claims 38 through 53 are pending in the application.

Claim Rejections Under 35 U.S.C. §112

Claim 38 is rejected under the second paragraph of 35 U.S.C. §112 for indefiniteness. The Examiner states that it is not clear whether “computer” and “host computer” are the same device or different devices. Applicant respectfully traverses this rejection for the following reasons.

First, the phrase “host computer” nowhere appears in pending claim 38.

Second, line 7 of claim 38 introduces “a plurality of computers”, while lines 8 and 10 refer to “each of said computers”. Line 19 then refers to “said plurality of computers.”

The absence of the singular number of “computer” and the absence of the phrase “host computer” indicate that this rejection is unfounded.

Withdrawal of this rejection is therefore respectfully requested.

Claim 38 is also rejected under the second paragraph of 35 U.S.C. §112 for indefiniteness. The Examiner states that the limitation “each computer of the plurality of printers comprising a controller adapted to determine standby print information indicative of an amount of standby print operations assigned via the network by all of a plurality of discrete sources to a corresponding one of the printers, a memory operative connected to the controller, and an interface adapted to transfer data between the controller and the network” as recited in claim 38 is confusing and unclear. Applicant respectfully traverses this rejection for the following reasons.

First, the Examiner premises this rejection upon the presence of the clause:

“Each computer of the each computer of the plurality of printers comprising a controller adapted to determine standby print information indicative of an amount of standby print operations assigned via the network by all of a plurality of discrete sources to a corresponding one of the printers, a memory operative [*sic*] connected to the controller, and an interface adapted to transfer data between the controller and the network.”

This clause appears nowhere in claim 38.

Second, the clause upon which the Examiner premises this rejection is inaccurately cited in support of the rejection. The actual clause which appears in lines 2 through 6 of claim 38 correctly reads:

“a plurality of printers operationally coupled to individually respond to instructions received via a network, each of the plurality of printers comprising a controller adapted to determine standby print information indicative of an amount of standby print operations received via the network from all of a plurality of discrete sources, a memory operatively connected to the controller, and an interface adapted to transfer data between the controller and the network.”

The foregoing recitation of the actual language of claim 38 reveals no instances of confusion or lack of clarity.

Third, although this rejection is premised upon the Examiner’s assertion that the

inaccurate except appearing in lines 2 through 6 of claim 38 “is confusing and unclear.” Nowhere in Paper No. 20070621 is there an instance of indefiniteness, confusion or lack of clarity identified. This rejection fails to comply with the degree of completeness and thoroughness required under 37 C.F.R. §1.104(b) and (c). Its withdrawal is therefore respectfully urged.

Fourth, Paper No. 20070621 inquires:

“(1) “each computer of the plurality of printers” is unclear. One computer for each printer? The examiner believe “each computer” in line 3 should read as “each printer”. As for prior art rejection purposes, the examiner herein assumes “each computer” as “each printer”. Clarification is required.”

The language excerpted in Paper No. 20070621 is not quite accurate. Claim 38, lines 2 through 6 actually reads:

“a plurality of printers operationally coupled to individually respond to instructions received via a network, each of the plurality of printers comprising a controller adapted to determine standby print information indicative of an amount of standby print operations received via the network from all of a plurality of discrete sources, a memory operatively connected to the controller, and an interface adapted to transfer data between the controller and the network.”

It may be seen therefore, that the Examiner’s assumption is technically accurate.

Fifth, Paper No. 20070621 also inquires:

“(2) The examiner is unclear whether the “controller, memory device, and an interface device” belong to each computer or each printer. Later limitations/features as cited in claim 38 (second paragraph, “a plurality of computer...”) also includes a computer having a controller, memory, and an interface device. Appropriate action is herein required.”

Lines 7 through 11 of claim 38 reads:

“a plurality of computers independently communicating by transferring data via the network, each of said computers

comprising a controller, an interface adapted to transfer data between the controller and the network, and a memory individually registering network printer information representative of said plurality of printers, each controller of each of the computers being adapted to individually complete registration items of network print information”

When read in their entirety, lines 2 through 6 and 7 through 11 accurately define both the “plurality of printers” and “plurality of computers.”

In view of the foregoing demonstration of clarity, withdrawal of this rejection is respectfully requested.

Claim Rejections Under 35 USC § 102

Claim 38 is rejected under 35 U.S.C. §102(b) as being anticipated by Ishii, Japanese Patent Publication No. 10-116165. Applicant respectfully traverses this rejection for the following reasons.

First, this appears to be a repetition of the final rejection earlier given in the final Office action mailed on the 1st of July 2004 (Paper No. 11). Here, claim 38 has been rejected under 35 U.S.C. §102(b) as being anticipated by Ishii (JP410116165A) for the reasons stated in section 4 on pages 2-4 of the final Office Action (Paper No. 11) mailed on the 1st of July 2004.

In its *Decision On Appeal*, the Board wrote that,

“thus, the artisan may clearly view such server [30] as a controller of each computer as well as of each printer since the server clearly functions to perform the functions corresponding to the disclosed controllers 20 of each host computer as well as the disclosed controller 30 of each printer in figure 2 as disclosed.”¹

As is explained in Applicant’s original specification, Applicant has discovered that,

¹ *Decision On Appeal*, page 4.

“when a print operation is performed in such a way that a selected network printer relays print data to another network printer and the latter network printer performs the print operation using the print data, the efficiency and applicability of print operation suffers because only a network printer of the same type can be selected for this case.”²

Applicant's system defined by claims 38 through 53 collectively enables each of a plurality of computers to individually avoid the detrimental effect upon efficiency and applicability cause by reliance upon a single host computer, or in alternative configurations, a server, such as is taught by Ishii JP 410116165A, which effectively create a bottleneck. Applicant however, presents in claims 38 through 53, structure which is, in an initial instance, and in subsequent instances, free of that bottleneck. Consequently, these distinctions prevent Ishii JP 410116165A from anticipating Applicant's claim 38 under 35 U.S.C. §102(b). Withdrawal of this rejection is therefore urged.

Second, in support of this rejection the Examiner now urges that:

Regarding claim 38, Ishii discloses a system (system as shown in fig. 1), comprising:

- a plurality of printers (printers 20-22, fig. 1) operationally coupled to individually respond to instructions received via a network (network, fig. 1), each printer (printers 20-22) of the plurality of printers comprising a controller (par. 25-26) adapted to determine standby print information indicative of an amount of standby print operations (standby print operations, abstract and par. 130-14) assigned via the network by all of a plurality of discrete sources (printer's information, par. 25) to a corresponding one of the printers, a memory operatively (printer information storage 201 of printer 20, fig. 4) connected to the controller, and an interface (interface connecting to network 50, fig. 1 & 4) adapted to transfer data between the controller and the network; and
- a plurality of computers (computers 10-12, fig. 1)

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Applicant's original specification, page 4, lines 4-8.

independently communicating by transferring data via the network, each of said computers comprising a microprocessor (processor 102 of computer 10, fig. 2) based controller, a memory (memory 103, fig. 1), and an interface (interface connecting to network 50, fig. 1) adapted to transfer data between the controller and the network, each memory of each of the computers individually registering network printer information (par. 23-24) representative of said plurality of printers, and each controller of each of the computers being adapted to individually complete registration items of network print information, and to respond to the registration by:

- accessing (accessing print server 30 via network 50, fig. 1) network printer information registered in the memory of the at least one host computer (print server 30 includes a database retrieval unit 304 for acquiring and retrieving printer's information and such information is stored in storage device 306, fig. 6, par. 17, page 3) in response to reception of a command for printing print-data (a printing command issued by plurality of clients 10-13, fig. 1), to transmit a request command to each of the plurality of network printers (print server further includes a transmitting device 302 for transmitting a request to retrieve printer's information from plurality of printers via network 50, fig. 6, and such requests are performed periodically, par. 28,- page 4) via the interface of the at least one host computer and the network and corresponding interfaces of the printers to command the printers to transmit standby print information (status information of plurality of printers as shown in fig. 8 and also see abstract and page 6) to via the network, determine a minimum-utilized networked printer having a lowest amount of standby print operations (printer standby time, abstract; NOTES: standby print information/operations is equivalent to the printers having "no print operations and/or a printer in waiting status" as described in originally filed specification, and please see fig. 8 of Ishii for more details) from among the printers having standby print operations from the standby print information transmitted from the networked printers to the at least one host computer in response to the request command; and transmitting the print-data via the network to the printer determined to be the minimum-utilized network printer (printer with "waiting status" and/or having the least print operation performed on the printers as shown in fig. 8).

Notes: The examiner interprets "computer" as cited in claim 38 as computer 10-13 as shown in fig. 1 of Ishii, and "host

computer” as cited in claim 38 as printer server 30 as shown in fig. 1 of Ishii.

This is an interesting interpretation of Ishii JP 410116165A. For the following reasons however, this interpretation fails to anticipate claim 38 under 35 U.S.C. §102(e). The Examiner has apparently not understood the express teachings of Ishii ‘165. By way of example, paragraph [0045] of Ishii ‘165 teaches that,

“when a computer includes a demand of the kind of printer, or the property of a printer in a series of print data which transmit to print server equipment 30 on it, the controlling mechanism 303 (refer to drawing 6) of printer server equipment 30 can determine the printer which a user demands by searching the property information field of the printer of the status information storing section 306, and becomes possible [choosing a suitable printer].”

Additionally, paragraph [0042] teaches that,

“It is told from the controlling mechanisms 303 of printer server equipment 30 that printing ended the computer 10 of printing demand origin, and a user becomes possible [getting to know that printing was completed normally] by showing the information in display.”

Moreover, paragraphs [0034] and [0035] teach that,

“The controlling mechanism 303 (refer to drawing 6) which checked that there had been a printing demand, accesses the status information storing section 306, and looks for the printer of a ‘standby state’ from the status section (refer to drawing 5) of printer information. In addition, the reference mechanism 304 discovers the printer equipment on a network in the status information storing section 306 periodically, and the information on the printer equipment is pulled out and stored in it from the printer information storing section 201 (refer to drawing 4). **For this reason, the information on the newest network printer is almost always reflected.**”

Paragraph [00??] of Ishii ‘165 teaches that,

“If ‘waiting’ printer equipment is found, a controlling mechanism 303 will write the information on the printing demand former computer of the print data settled in the print-data storing section, document information, etc. in the area corresponding to the printer of the status information storing section 306, and will takeout transmitting directions to the data transmitter style 302 (refer to drawing 6) of printer equipment.”

This system is precisely what Applicant described on page 3 of Applicant’s original specification, when Applicant wrote that “when a printer operation is required to be performed for the host computer, print data are transmitted from the host computer to the selected network printer. ... The selected network printer detects the network printer of the same type among the network printers and relays the print data received from the host computer.” As explained by Applicant, this prior art has failed to combine the instantaneous backlog of work distributed among the computers, and has also failed to prioritize the assignment of forthcoming printing jobs on the basis of net distribution.

In contradistinction however, Applicant, as defined by Applicant’s claim 38, Applicant teaches “a plurality of printers operationally coupled to individually respond” in combination with “a plurality of computers independently communicating **by transferring data via the network** ... each controller of each of the computers being adapted to individually complete registration” In contrast, Iishi ‘165 requires a less efficient system described in paragraph [0028] of Ishii ‘165, which teaches that,

“[0028] If ‘waiting’ printer equipment is found, a controlling mechanism 303 will write the information on the printing demand former computer of the print data settled in the print-data storing section, document information, etc. in the area corresponding to the printer of the status information storing section 306, and will takeout transmitting directions to the data transmitter style 302 (refer to drawing 6) of printer equipment.”

This system taught by Iishi '165 is precisely what Applicant corrected with the improvements defined by claim 38 in which:

“each controller of each of the computers being adapted to individually complete registration items of network print information by:

accessing via the network printer information registered in the memory of in response to reception of a command for printing print-data, to directly transmit an instruction to each of the printers via the interface to command the printers to transmit standby print information via the network, from among the printers operationally coupled to the network determining on a basis of standby print information received from the printers in response to the instruction, a least used printer having a least amount of standby print operations, and

independently of others of said plurality of computers, to initiate printing of print-data by directly transmitting the print-data via the network to the printer determined to be the least used printer.”

This structure is wholly absent from Iishi '165. Consequently, under current practice as enunciated by the U.S. Court of Appeals for the Federal Circuit in its *Decision* for *In re Jed Margolin*, ___ F.3d ___, ___ USPQ 2d ___ (Fed. Cir. 15 June 2007), the examiner “compares the construed claims to the asserted anticipating reference, to determine whether ***each and every limitation is found*** either expressly or inherently in [that] single prior art reference.” *In re Crish*, 393 F.3d 1253, 1256 (Fed. Cir. 2004) quoting *Celeritas Techs. Ltd. V. Rockwell Int'l Corp.*, 150 F. 3d 1345, 1360 (Fed. Cir. 1998). Here, each and every limitation of claim 38 has not been found by the Examiner in Iishi '165. Accordingly, the rejection of claim 38 is deemed to be in error and should not be sustained. Accordingly, there is no anticipation. Withdrawal of this rejection is therefore urged.

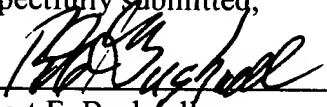
Status of Claims 39 Through 57

Applicant notes that no rejections have been made for claims 39-57. Applicant understands therefore, claims 39-57 are in condition for allowance. Such an action is respectfully requested.

In view of the foregoing explanation and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

No fee is incurred by this Paper.

Respectfully submitted,



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